

REMARKS/ARGUMENTS

Claims 1 and 3-17 are pending herein. Claim 2 has been cancelled hereby in favor of rewritten claim 1. Claims 1, 3, 6, 7 and 9-17 have been amended hereby. Claim 1 has been rewritten to incorporate the features of claim 2, and claims 3, 6 and 17 have been amended to correct matters of form and for clarification purposes only. Claims 7 and 9-16 have been rewritten in independent form. Applicants respectfully submit that no new matter has been added.

1. Applicants appreciate the PTO indicating that claims 7 and 11-16 would be allowed if rewritten in independent form. Applicants respectfully submit that these claims have been so rewritten. In addition to rewritten claims 7 and 11-16, Applicants respectfully submit that all claims pending herein are in condition for allowance for the reasons explained below.
2. Claims 1-6, 8 and 17 were rejected under §102(e) over Shiraishi. Applicants respectfully traverse this rejection.

Independent claim 1 recites a piezoelectric/electrostrictive device comprising a base constructed of one sheet of a flat plate and having a pair of right and left movable parts, a fixing part having a flat shape that connects the movable parts with each other at one end thereof, and a piezoelectric/electrostrictive element disposed on at least one side of the movable parts. The movable parts are erect by a predetermined height from side peripheries of the fixing part to face each other and extend beyond the other end of the fixing part along the side peripheries of the fixing part, and a slit-shaped groove extends from the other end of the fixing part and intervenes between a base part of the movable parts and the side peripheries of the fixing part.

Independent claim 3 recites a piezoelectric/electrostrictive device comprising a base constructed of one sheet of a flat plate and having a pair of right and left movable parts, a fixing part having a flat shape that connects the movable parts with each other at one end thereof, a mounting part having a flat shape that is separate from the fixing

part and connects the movable parts with each other at the other end thereof, and a piezoelectric/electrostrictive element disposed on at least one side of the movable parts. The movable parts are erect by a predetermined height from the side peripheries of the fixing part and mounting part to face each other and extend along the side peripheries of the fixing part and the mounting part.

Independent claim 6 is directed to the piezoelectric/electrostrictive device recited in claim 3, and further includes a connecting part that is integral with the mounting part and surrounds the mounting part, the movable parts and the fixing part. The movable parts, the fixing part and the mounting part are positioned within a central space of the connecting part.

With respect to independent claim 1, the PTO asserted that "Shiraishi discloses the slit-shaped grooves (figures 5 and 6)" (Office Action, page 2, last line).

Applicants respectfully submit, however, that Shiraishi does not, in fact, disclose the slit-shaped grooves recited in claim 1. That is, the slit-shaped grooves recited in claim 1 are shown, for example, as 11e₁ and 11e₂ in Figs. 3A and 3B of the present application. Figs. 5 and 6 of Shiraishi, on which the PTO relied, clearly do not disclose, or even remotely suggest, the slit-shaped grooves recited in claim 1. Indeed, Applicants respectfully submit that the entire reference is silent with respect to the slit-shaped groove feature recited in independent claim 1.

With respect to independent claims 3 and 6, Applicants respectfully submit that there is no disclosure in Shiraishi of a mounting part that is separate from the fixing part and that connects the two movable parts with each other at the other ends thereof, as recited in claims 3 and 6. Applicants also respectfully submit that there is no disclosure in Shiraishi of a connecting part that is integral with the mounting part and surrounds the mounting part, the movable parts or the fixing part as recited in claim 6.

For at least the foregoing reasons, Applicants respectfully submit that Shiraishi does not disclose each and every element recited in independent claims 1, 3 and 6. Accordingly, Applicants respectfully submit that all claims pending herein define patentable subject matter over Shiraishi, and respectfully request that the above

rejection be reconsidered and withdrawn.

3. Claims 9 and 10 were rejected under §103(a) over Shiraishi. Applicants respectfully traverse this rejection.

Claim 9 recites a piezoelectric/electrostrictive device comprising a base constructed of one sheet of a flat plate and having a pair of right and left movable parts, a fixing part having a flat shape that connects the movable parts with each other at one end thereof, and a piezoelectric/electrostrictive element disposed on at least one side of the movable parts. The movable parts are erect by a predetermined height from side peripheries of the fixing part to face each other and extend beyond the other end of the fixing part along the side peripheries of the fixing part, and a connecting portion between a base part of the movable parts and the side peripheries of the fixing part has a circular arc shape.

Independent claim 10 relates to the piezoelectric/electrostrictive device of claim 3, and further recites that a connecting portion between a base part of the movable parts and the side peripheries of the fixing part and the mounting part has a circular arc shape.

In the Office Action, the PTO asserted that "it would have an obvious matter of design choice to have the base with circular shape since the applicant has not disclosed that the circular shape of the base solves any problem or is for a particular reason. It appears that the claimed invention would perform equally well with the rectangular shape as disclosed in Shiraishi" (Office Action, page 3, last two lines—page 4, line 2). Applicants respectfully submit that this assertion is incorrect.

That is, Applicants respectfully submit that the present specification clearly sets forth reasons for providing the circular arc-shaped connecting portion, as claimed, as well as the specific benefits of the claimed structure. Applicants respectfully submit that structures including the circular arc-shaped connecting portions between the movable parts and the fixing part (claim 9) and between the movable parts and the fixing part and the mounting part (claim 10) improve the movability of the movable

parts and produce "high device functions" (see specification, page 27, lines 22-24). The specification further recites:

"The second piezoelectric/electrostrictive device 10b facilitates making a highly precise degree of orthogonality of movable parts 13a, 13b to fixing part 13c and mounting part 13d, thereby restraining displacements in the flapping direction. Moreover, since the position of movable parts 13a, 13b in the Y-axis direction with respect to fixing part 13c and mounting part 13d can be set by changing the degree of bending the circular arc-shaped bent parts, the device designing can have a larger width."

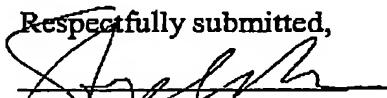
(Specification, page 27, line 25–page 28, line 4 and Fig. 6A, for example).

In view of the fact that the present application clearly discloses not only the reasons but also the benefits of the structures recited in claims 9 and 10, and since the PTO admitted that Shiraishi does not disclose these structures, Applicants respectfully submit that one skilled in the art would not have been motivated to modify Shiraishi's structure to include the circular arc-shaped connecting portions recited in claims 9 and 10 absent Applicants' present disclosure. Further, with respect to claim 10, Applicants respectfully submit that claim 10 includes all of the features recited in claim 3, which is patentable over Shiraishi for the reasons explained above in section 2. Applicants respectfully submit that claims 9 and 10 therefore define patentable subject matter over Shiraishi. Accordingly, Applicants respectfully request that the above rejection be reconsidered and withdrawn.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

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Date

Respectfully submitted,

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